

REGULATION II - PERMITS AND FEES

RULE 240

PERMITS FOR NEW MAJOR SOURCES AND MAJOR MODIFICATIONS TO EXISTING MAJOR SOURCES

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**MARICOPA COUNTY
AIR POLLUTION CONTROL REGULATIONS**

REGULATION II - PERMITS AND FEES

**RULE 240
PERMITS FOR NEW MAJOR SOURCES AND
MAJOR MODIFICATIONS TO EXISTING MAJOR SOURCES**

SECTION 100 - GENERAL

- 101 PURPOSE:** To provide an orderly procedure for the review of new major sources and of major modifications to existing major sources of air pollution requiring permits or permit revisions.
- 102 APPLICABILITY:** The provisions of this rule shall not apply to new sources and modifications to existing sources subject to the requirements of Rule 241 of these rules.

SECTION 200 - DEFINITIONS: For the purpose of this rule, the following definitions shall apply:

- 201 ADVERSE IMPACT ON VISIBILITY -** Visibility impairment which interferes with the management, protection, preservation, or enjoyment of visual experience of a Class I area, as determined by Rule 500 of these rules.
- 202 CATEGORICAL SOURCES -** The following classes of sources:
- 202.1** Coal cleaning plants with thermal dryers;
 - 202.2** Kraft pulp mills;
 - 202.3** Portland cement plants;
 - 202.4** Primary zinc smelters;
 - 202.5** Iron and steel mills;
 - 202.6** Primary aluminum ore reduction plants;

- 202.7** Primary copper smelters;
- 202.8** Municipal incinerators capable of charging more than 50 tons of refuse per day;
- 202.9** Hydrofluoric, sulfuric, or nitric acid plants;
- 202.10** Petroleum refineries;
- 202.11** Lime plants;
- 202.12** Phosphate rock processing plants;
- 202.13** Coke oven batteries;
- 202.14** Sulfur recovery plants;
- 202.15** Carbon black plants using the furnace process;
- 202.16** Primary lead smelters;
- 202.17** Fuel conversion plants;
- 202.18** Sintering plants;
- 202.19** Secondary metal production plants;
- 202.20** Chemical process plants;
- 202.21** Fossil-fuel boilers, or combination thereof, totaling more than 250 million British thermal units (BTU) per hour heat input;
- 202.22** Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels;
- 202.23** Taconite preprocessing plants;
- 202.24** Glass fiber processing plants;
- 202.25** Charcoal production plants;

- 202.26** Fossil fuel-fired steam electric plants and combined cycle gas turbines of more than 250 million BTU per hour rated heat input.
- 203 CONVENTIONAL AIR POLLUTANT** - Any pollutant for which the Administrator has promulgated a primary or secondary national ambient air quality standard.
- 204 DISPERSION TECHNIQUE** - Any technique which attempts to affect the concentration of a pollutant in the ambient air by any of the following:
- 204.1** Using that portion of a stack which exceeds good engineering practice stack height;
 - 204.2** Varying the rate of emission of a pollutant according to atmospheric conditions or ambient concentrations of that pollutant; or
 - 204.3** Increasing final exhaust gas plume rise by manipulating source process parameters, exhaust gas parameters, stack parameters, or combining exhaust gases from several existing stacks into one stack; or other selective handling of exhaust gas streams so as to increase the exhaust gas plume rise. This shall not include any of the following:
 - a.** The reheating of a gas stream, following use of a pollution control system, for the purpose of returning the gas to the temperature at which it was originally discharged from the source generating the gas stream.
 - b.** The merging of exhaust gas streams under any of the following conditions:
 - (1)** The source owner or operator demonstrates that the source was originally designed and constructed with such merged gas streams;
 - (2)** After July 8, 1985, such merging is part of a change in operation at the source that includes the installation of pollution controls and is accompanied by a net reduction in the allowable emissions of a pollutant, applying only to the emission limitation for that pollutant; or
 - (3)** Before July 8, 1985, such merging was part of a change in operation at the facility that included the installation of emissions control equipment or was carried out for sound economic or engineering reasons. Where there was an increase in the emission limitation or, in the event that no emission limitation was in existence prior to the merging, an increase in the quantity of pollutants actually emitted

prior to the merging, the Control Officer shall presume that merging was significantly motivated by an intent to gain emissions credit for greater dispersion. Absent a demonstration by the source, owner or operator, that merging was not significantly motivated by such intent, the Control Officer shall deny credit for the effects of such merging in calculating the allowable emissions for the source.

- c. Smoke management in agricultural or silvicultural prescribed burning programs.
- d. Episodic restrictions on residential woodburning and open burning.
- e. Techniques which increase final exhaust gas plume rise where the resulting allowable emissions of sulfur dioxide from the source do not exceed 5,000 tons per year.

205 GOOD ENGINEERING PRACTICE (GEP) STACK HEIGHT - A stack height meeting the requirements described in Section 309 of this rule.

206 HIGH TERRAIN - Any area having an elevation of 900 feet or more above the base of the stack of a source.

207 INNOVATIVE CONTROL TECHNOLOGY - Any system of air pollution control that has not been adequately demonstrated in practice, but would have a substantial likelihood of achieving greater continuous emissions reduction than any control system in current practice or of achieving at least comparable reductions at lower cost in terms of energy, economics, or nonair quality environmental impacts.

208 LOW TERRAIN - Any area other than high terrain.

209 LOWEST ACHIEVABLE EMISSION RATE (LAER) - For any source, the more stringent rate of emissions based on one of the following:

209.1 The most stringent emissions limitation which is contained in the State Implementation Plan (SIP), as defined in Rule 100 of these rules, for such class or category of stationary source, unless the owner or operator of the proposed stationary source demonstrates that such limitations are not achievable; or

209.2 The most stringent emissions limitation which is achieved in practice by such class or category of stationary source. This limitation, when applied to a modification, means the lowest achievable emissions rate for the new or modified emissions units within the stationary source. In no event shall the

application of this term permit a proposed new or modified stationary source to emit any pollutant in excess of the amount allowable pursuant to the applicable standards of performance as contained in Rule 360 of these rules and as contained in 40 CFR 60 and 40 CFR 61.

210 MAJOR SOURCE -

210.1 Any stationary source located in a nonattainment area which emits, or has the potential to emit, 100 tons per year or more of any conventional air pollutant, except as follows:

| <u>Pollutant Emitted</u> | <u>Nonattainment Pollutant And Classification</u> | <u>Quantity Threshold Tons/Year Or More</u> |
|----------------------------------|---|--|
| Carbon Monoxide (CO) | CO, Serious, with stationary sources as more than 25% of source inventory | 50 |
| Volatile Organic Compounds (VOC) | Ozone, Serious | 50 |
| VOC | Ozone, Severe | 25 |
| PM ₁₀ | PM ₁₀ , Serious | 70 |
| NO _x | Ozone, Serious | 50 |
| NO _x | Ozone, Severe | 25 |

210.2 Any stationary source located in an attainment or unclassifiable area which emits, or has the potential to emit, 100 tons per year or more of any conventional air pollutant if the source is classified as a Categorical Source, or 250 tons per year or more of any pollutant subject to regulation pursuant to the Act if the source is not classified as a Categorical Source; or

210.3 Any change to a minor source which would increase its emissions to the qualifying levels specified in Sections 210.1 or 210.2 of this rule;

210.4 Any stationary source which emits, or has the potential to emit, five or more tons of lead per year; or

- 210.5** Any source classified as major undergoing modification that meets the definition of reconstruction.
- 210.6** A major source that is major for volatile organic compounds shall be considered major for ozone.
- 210.7** A major source that is major for oxides of nitrogen shall be considered major for ozone in nonattainment areas classified as marginal, moderate, serious or severe.
- 211 RECONSTRUCTION** - Of sources located in nonattainment areas, reconstruction shall be presumed to have taken place where the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost of a comparable entirely new stationary source, as determined in accordance with the provisions of 40 CFR 60.15(f)(1) through (3).
- 212 SECONDARY EMISSIONS** - Emissions which are specific, well defined, quantifiable, occur as a result of the construction or operation of a major source or major modification, but do not come from the major source or major modification itself, and impact the same general area as the stationary source or modification which causes the secondary emissions. Secondary emissions include emissions from any offsite support source which would not otherwise be constructed or increase its emissions as a result of the construction or operation of the major source or major modification. Secondary emissions do not include any emissions which come directly from a mobile source, such as emissions from the tailpipe of a motor vehicle, from a train, or from a vessel.
- 213 SIGNIFICANCE LEVELS** - The following ambient concentrations for the enumerated pollutants:

| <u>Pollutant</u> | <u>Annual</u> | <u>24-Hour</u> | <u>Averaging Time</u> | | |
|------------------|---------------------|---------------------|-----------------------|----------------------|---------------------|
| | | | <u>8-Hour</u> | <u>3-Hour</u> | <u>1-Hour</u> |
| SO ₂ | 1 µg/m ³ | 5 µg/m ³ | | 25 µg/m ³ | |
| NO ₂ | 1 µg/m ³ | | | | |
| CO | | | 0.5 mg/m ³ | | 2 mg/m ³ |
| PM ₁₀ | 1 µg/m ³ | 5 µg/m ³ | | | |

Except for the annual pollutant concentrations, exceedance of significance levels shall be deemed to occur when the ambient concentration of the above pollutants is exceeded more than once per year at any one location. If such concentration occurs at a specific location and at a time when the Arizona ambient air quality standard for such pollutant is not violated, then the significance level does not apply.

SECTION 300 - STANDARDS

- 301 PERMIT OR PERMIT REVISION REQUIRED:** No person shall commence construction of a new major source nor commence major modification of a major source without first obtaining a permit or a permit revision from the Control Officer.
- 302 APPLICATION COMPLETENESS:** An application for a permit or a permit revision pursuant to this rule shall not be considered complete unless the application demonstrates that:
- 302.1** The requirements in Section 303 of this rule are met;
 - 302.2** The more stringent of the applicable new source performance standards in Rule 360 of these rules or the existing source performance standards in Regulation III of these rules are applied to the proposed new major source or major modification of a major source;
 - 302.3** The new major source or major modification will not have an adverse impact on visibility as determined by Section 511 of this rule and will satisfy all the visibility requirements contained in Section 511 of this rule. A demonstration of the impact on visibility shall be made according to Section 508 of this rule and shall be included with the application;
 - 302.4** All applicable provisions of Rules 200, 210, 240, 245, and 270 of these rules are met;
 - 302.5** The new major source or major modification will be in compliance with whatever emission limitation, design, equipment, work practice or operational standard, or combination thereof is applicable to the source or modification. The degree of emission limitation required for control of any pollutant pursuant to this rule shall not be affected in any manner by:
 - a.** Stack height in excess of GEP stack height except as provided in Section 309 of this rule; or
 - b.** Any other dispersion technique, unless implemented prior to December 31, 1970.
 - 302.6** The new major source or major modification will not exceed the applicable standards for hazardous air pollutants contained in Rule 370 of these rules.

302.7 The new major source or major modification will not exceed the limitations, if applicable, on emission from fugitive sources contained in Rules 310, 311, and 316 of these rules.

302.8 A stationary source that will emit five or more tons of lead per year will not violate the ambient air quality standards for lead contained in Rule 510 of these rules.

303 AIR IMPACT ANALYSIS FOR ANY GEOGRAPHICAL AREA: Except for assessing air quality impacts within Class I areas, the air impact analysis required to be conducted as part of a permit application shall initially consider only the geographical area located within a 50 kilometer (31 mile) radius from the point of greatest emissions for the new major source or major modification. The Control Officer, on his own initiative or upon receipt of written notice from any person, shall have the right at any time to request an enlargement of the geographical area for which an air quality impact analysis is to be performed by giving the person applying for the permit or permit revision written notice thereof, specifying the enlarged radius to be so considered. In performing an air impact analysis for any geographical area with a radius of 50 kilometers (31 miles), the person applying for the permit or permit revision may use monitoring or modeling data obtained from major sources having comparable emissions or having emissions which are capable of being accurately used in such demonstration and which are subjected to terrain and atmospheric stability conditions which are comparable or which may be extrapolated with reasonable accuracy for use in such demonstration.

304 ACTION ON APPLICATION AND NOTIFICATION REQUIREMENTS: In addition to or in lieu of the requirements of Rules 200, 210, 240, 245, and 270 of these rules, the Control Officer shall comply with the following requirements:

304.1 Within 60 days after receipt of an application for a permit, of a permit revision subject to this rule, or of any addition to such application, the Control Officer shall advise the applicant of any deficiency in the application. The date of receipt of the application shall be, for the purpose of this rule, the date on which the Control Officer received all required information. The permit application shall not be deemed complete solely because the Control Officer failed to meet the requirements of this subsection.

304.2 In addition to Section 511 of this rule, a copy of any notice required by Section 511 of this rule shall be sent to the permit applicant, to the Administrator, and to the following officials and agencies having cognizance of the location where the proposed major source or major modification would occur:

- a. The Control Officer for the county wherein the proposed or existing source that is the subject of the permit or permit revision application is located;

- b. The Board of Supervisors for the county wherein the proposed or existing source that is the subject of the permit or permit revision application is located;
- c. The city or town managers of the city or town within which, and any city or town the boundaries of which are within five miles of the location of the proposed or existing source that is the subject of the permit or permit revision application;
- d. Any regional land use planning agency with authority for land use planning in the area where the proposed or existing source that is the subject of the permit or permit revision application is located; and
- e. Any State, Federal Land Manager, or Indian governing body whose lands may be affected by emissions from the proposed source or modification.

304.3 The Control Officer shall take final action on the application within one year of the proper filing of the complete application. The Control Officer shall notify the applicant in writing of his approval or of his denial.

304.4 The Control Officer shall terminate a permit or permit revision issued pursuant to this rule if the proposed construction or major modification is not begun within 18 months of issuance, or if during the construction or major modification, work is suspended for more than 18 months.

304.5 Within 30 days of the issuance of any permit pursuant to this rule, the Control Officer shall submit control technology information from the permit to the Administrator for the purposes listed in Section 173(d) of the Act.

305 PERMIT REQUIREMENTS FOR SOURCES LOCATED IN NONATTAINMENT AREAS:

305.1 Except as provided in Sections 305.3 through 305.7 of this rule, no permit or permit revision shall be issued pursuant to this rule to a person proposing to construct a new major source or proposing to make a major modification to a source located in any nonattainment area for the pollutant(s) for which the source is classified as a major source or the modification is classified as a major modification unless:

- a. The person demonstrates that the new major source or the major modification will meet an emission limitation which is the lowest achievable

emission rate (LAER) for that source for that specific pollutant(s). In determining LAER for a reconstructed stationary source, the provisions of 40 CFR 60.15(f)(4) shall be taken into account in assessing whether a new source performance standard is applicable to such stationary source.

- b. The person demonstrates that all existing major sources owned or operated by that person (or any entity controlling, controlled by, or under common control with that person) in the State are in compliance with, or are on a schedule of compliance for, all conditions contained in permits of each of the sources and all other applicable emission limitations and standards pursuant to the Act and in this rule.
- c. The person demonstrates that emission reductions for the specific pollutant(s) from source(s) in existence in the allowable offset area of the new major source or major modification (whether or not under the same ownership) meet the offset and net air quality benefit requirements of Section 306 of this rule.

305.2 No permit or permit revision pursuant to this rule shall be issued to a person proposing to construct a new major source or proposing to make a major modification to a major source located in a nonattainment area unless:

- a. The person performs an analysis of alternative sites, sizes, production processes and environmental control techniques for such new major source or major modification; and
- b. The Control Officer determines that the analysis demonstrates that the benefits of the new major source or major modification significantly outweigh the environmental and social costs imposed as a result of its location, construction, or modification.

305.3 At such time that a particular source or modification becomes a major stationary source or major modification solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of this rule shall apply to the source or modification as though construction had not yet commenced on the source or modification.

305.4 Secondary emissions shall not be considered in determining the potential to emit of a new source or modification and therefore whether the new source or modification is major. However, if a new source or modification is subject to this rule on the basis of its direct emissions, a permit or a permit revision

pursuant to this rule to construct the new source or modification shall be denied unless the conditions specified in Sections 305.1a and 305.1b of this rule are met for reasonably quantifiable secondary emissions caused by the new source or modification.

305.5 A permit to construct a new source or modification shall be denied unless the conditions specified in Sections 305.1a, 305.1b, and 305.1c of this rule are met for fugitive emissions caused by the new source or modification. However, these conditions shall not apply to a new major source or major modification that would be a major source or major modification only if fugitive emissions, to the extent quantifiable, are considered in calculating the potential emissions of the source or modification, and the source is neither a categorical source nor a source belonging to the category of sources for which New Source Performance Standards pursuant to 40 CFR Part 60 or National Emission Standards for Hazardous Air Pollutants pursuant to 40 CFR Part 61 promulgated by the Administrator prior to August 7, 1980.

305.6 The requirements of Section 305.1c of this rule shall not apply to temporary emission sources, such as pilot plants and portable sources, which are only temporarily located in the nonattainment area, are otherwise regulated by a permit, and are in compliance with the conditions of that permit.

305.7 A decrease in actual emissions shall be considered in determining the potential of a new source or modification to emit only to the extent that the Control Officer has not relied on it in issuing any permit or permit revision pursuant to these rules, or the State has not relied on it in demonstrating attainment or reasonable further progress (RFP).

306 OFFSET AND NET AIR QUALITY BENEFIT STANDARDS:

306.1 Increased emissions by a major source or major modification subject to this rule shall be offset by reductions in the emissions of each pollutant for which the area has been designated as nonattainment and for which the source or modification is classified as major. Such offset may be obtained by reductions in emissions from the source or modification, or from any other source in existence within the allowable offset area, on the startup date of the new major source or major modification. Credit for an emissions offset can be used only if it has not been relied upon in demonstrating attainment or in demonstrating RFP, and if it has not been relied upon previously in issuing a permit or permit revision pursuant to this rule pursuant to Sections 301 through 305 of this rule or not otherwise required under this rule or under any provision of the SIP.

- 306.2** An offset shall not be sufficient unless reductions of total emissions for the particular pollutant for which the offset is required will be:
- a. Obtained from sources within the allowable offset area;
 - b. A surplus emission, which is an emission reduction not required by current regulations in the SIP; not already relied upon for SIP planning purposes; and not used by the source to meet any other regulatory requirement, including, at the time emission reduction credits (ERCs) are used, RACT, RFP, or milestones therefor, or demonstration of attainment;
 - c. Contemporaneous with the operation, the new major source, or major modification;
 - d. An emission enforceable by the Administrator;
 - e. A quantifiable emission. Quantification may be based on emission factors, stack tests, monitored values, operating rates and averaging times, process or production inputs, modeling or other reasonable measurement practices. Quantification methods shall be credible, workable, and replicable. The method for calculating emission should be used to measure the emissions both before and after the changes in emission levels, both at the generator and at the user of the ERCs; and
 - f. Sufficient to satisfy the Control Officer that emissions from the new major source or major modification, together with the offset, will result in RFP for that pollutant.
- 306.3** In ozone nonattainment areas classified as marginal, total emissions of VOC and oxides of nitrogen from other sources shall offset those proposed or permitted from the major source or major modification by a ratio of at least 1.10:1. In ozone nonattainment areas classified as moderate, total emissions of VOC and oxides of nitrogen from other sources shall offset those proposed or permitted from the major source or major modification by a ratio of at least 1.15:1. New major sources and major modifications in serious and severe ozone nonattainment areas shall conform to the requirements of this section and of Section 307 of this rule.
- 306.4** Only intrapollutant emission offsets shall be allowed. Intrapollutant emission offsets for volatile organic compounds shall only include offset reductions in emissions of volatile organic compounds. Intrapollutant emission offsets for

oxides of nitrogen shall only include offset reductions in emissions of oxides of nitrogen.

306.5 For purposes of this rule, reasonable further progress (RFP) shall mean compliance with the schedule of annual incremental reductions in emissions of the applicable air pollutant prescribed by the Control Officer based on air quality modeling pursuant to Section 510 of this rule, to provide for attainment of the applicable air quality standards by the deadlines set under Part D of Title I of the Act, or in an applicable implementation plan.

306.6 For purposes of this rule, net air quality benefit shall mean that during similar time periods either Sections 306.6a or 306.6b of this rule is applicable:

- a.** A reduction in the number of violations of the applicable Arizona ambient air quality standard within the allowable offset area has occurred and the following mathematical expression is satisfied:

$$\sum_{i=1}^N \frac{X_i - C}{N} \leq \sum_{j=1}^K \frac{X_j - C}{K}$$

C = The applicable Arizona ambient air quality standard.

X_i = The concentration level of the violation at the i^{th} receptor for such pollutant after offsets.

N = The number of violations for such pollutant after offsets ($N \leq K$).

X_j = The concentration level of the violation at the j^{th} receptor from such pollutant before offsets.

K = The number of violations for such pollutant before offsets.

- b.** The average of the ambient concentrations within the allowable offset area following the implementation of the contemplated offsets will be less than the average of the ambient concentrations within the allowable offset area without the offsets.

306.7 For the purpose of this rule, baseline shall be defined as:

- a.** The baseline of total emissions from any sources in existence or sources which have obtained a permit or permit revision pursuant to this rule, regardless of whether or not such sources are in actual operation at the time of application for the permit or permit revision shall be the total actual emissions at the time the application is filed. In addition, the baseline of total emissions shall consist of all emission limitations included as

conditions on federally enforceable permits except that the offset baseline shall be the actual emissions of the source from which offset credit is obtained where:

- (1) No emission limitations are applicable to a source from which offsets are being sought; or
- (2) The demonstration of RFP and attainment of ambient air quality standards is based upon the actual emissions of sources located within a designated nonattainment area.

- b. Where the emission limitations for a particular pollutant allow greater emissions than the potential emission rate of the source for that pollutant, the baseline shall be the potential emission rate at the time application for the permit or permit revision pursuant to this rule is filed, and emissions offset credit shall be allowed only for control below the potential emission rate.

306.8 For an existing fuel combustion source, offset credit shall be based on the allowable emissions pursuant to the regulations or permit conditions applicable to the source for the type of fuel being burned at the time the application for the permit or permit revision pursuant to this rule is filed. If an existing source commits to switch to a cleaner fuel at some future date, emissions offset credit based on the actual emissions for the fuels involved shall not be acceptable unless:

- a. The permit or permit revision pursuant to this rule for the source specifically requires the use of a specified alternative control measure which would achieve the same degree of emissions reduction should the source switch back to a dirtier fuel at some later date; and
- b. The source demonstrates to the satisfaction of the Control Officer that it has secured an adequate long-term supply of the cleaner fuel.

306.9 Offsets shall be made on either a pounds-per-hour, pounds-per-day, or tons-per-year basis, whichever is applicable, when all sources involved in the emission offset calculations are operating at their maximum expected or allowed production rate and, except as otherwise provided in Section 306.6 of this rule, utilizing the type of fuel burned at the time the application for the permit or permit revision pursuant to this rule is filed. A tons-per-year basis shall not be used, if the new or modified source or the source offsets is not expected to operate throughout the entire year. No emissions credit may be allowed for replacing one VOC with another VOC of lesser reactivity.

- 306.10** Emissions reductions achieved by shutting down an existing source or permanently curtailing production or operating hours below baseline levels may be credited, provided that the work force to be affected has been notified of the proposed shutdown or curtailment. No offset credits for shutdowns or curtailments shall be provided for emissions reductions that are necessary to bring a source into compliance with RACT or any other standard pursuant to an applicable implementation plan. Source shutdowns and curtailments in production or operating hours occurring prior to the date the new major source or major modification application is filed shall not be used for emissions offset credit except as follows: where an applicant can establish that it shutdown or curtailed production after August 7, 1977, or less than one year prior to the date of application for the permit or permit revision pursuant to this rule, whichever is earlier, and the proposed new major source or major modification is a replacement for the shutdown or curtailment, credit for such shutdown or curtailment may be applied to offset emissions from the new source or modification.
- 306.11** The allowable offset area shall refer to the geographical area in which are located the sources whose emissions are being sought for purposes of offsetting emissions from a new major source or major modification. For the pollutants, sulfur dioxide, particulate matter and carbon monoxide, the allowable offset area shall be determined by atmospheric dispersion modeling. If the emission offsets are obtained from a source on the same premises or in the immediate vicinity of the new major source or major modification, and the pollutants disperse from substantially the same effective stack height, atmospheric dispersion modeling shall not be required. The allowable offset area for all other pollutants shall be the nonattainment areas for those pollutants within which the new major source or major modification is to be located.
- 306.12** An emission reduction may only be used to offset emissions if the reduced level of emissions will continue for the life of the new source or modification and if the reduced level of emissions is legally and federally enforceable. It shall be considered legally enforceable, if the following conditions are met by the time such source or modification commences operation:
- a.** The emission reduction is included as a condition in the permit of the source relied upon to offset the emissions from the new major source or major modification, or in the case of reductions from sources controlled by the applicant, is included as a condition of the permit or permit revision pursuant to this rule for the new major source or major modification, or is adopted as a part of these rules or comparable rules and regulations of any other governmental entity.

- b. The permit conditions or rules containing, governing or otherwise describing the emission reduction have been approved by the Administrator for inclusion in the State Implementation Plan (SIP) adopted pursuant to Section 110 of the Act.

307 SPECIAL REQUIREMENTS FOR SOURCES OF VOC OR OXIDES OF NITROGEN IN OZONE NONATTAINMENT AREAS CLASSIFIED AS SERIOUS OR SEVERE:

- 307.1 Applicability:** The provisions of Section 307 of this rule only apply to stationary sources of VOC or oxides of nitrogen in ozone nonattainment areas classified as serious or severe. Unless otherwise provided in this rule, all requirements of Rules 200, 210, 240, 245, and 270 of these rules apply.
- 307.2** Significant means, for the purposes of a major modification of any stationary source of VOC or oxides of nitrogen, any physical changes or changes in the method of operations that results in net increases in emissions of either pollutant by more than 25 tons when aggregated with all other creditable increases in emissions from the source over the prior five consecutive calendar years, including the calendar year in which the increase is proposed. Emissions decreases shall only be creditable, if they are simultaneous with the proposed modification.
- 307.3** For any stationary source that emits or has the potential to emit less than 100 tons VOC or oxides of nitrogen per year, a significant increase in VOC or oxides of nitrogen, respectively from any discrete emissions unit, operation, or other pollutant emitting activity shall constitute a major modification unless the increase in emissions is offset from other units, operations or activities at the source at a ratio of 1.3:1 for the increase in VOC or oxides of nitrogen from such unit, operation, or activity within the facility only. If such a change qualifies as a major modification pursuant to this rule, BACT shall be substituted for LAER. Net emissions increases in VOC or oxides of nitrogen above the internal offset described herein shall be subject to the offset requirements in Sections 307.5 and 307.6 of this rule.
- 307.4** For any stationary source that emits or has the potential to emit 100 tons or more of VOC or oxides of nitrogen per year, any significant increase in VOC or oxides of nitrogen, respectively from any discrete emitting unit, operation, or other pollutant emitting activity shall constitute a major modification. If the increase in emissions from such modification is offset from other units, operations or activities at the source at a ratio of 1.3:1 for the increase in VOC or oxides of nitrogen, respectively from such unit, operation or activity, BACT

shall be substituted for LAER. Net emissions increases in VOC or oxides of nitrogen above the internal offset described herein shall be subject to the offset requirements in Section 307.5 and 307.6 of this rule.

307.5 For any new major source or major modification which is classified as such because of emissions or potential to emit VOC or oxides of nitrogen in an ozone nonattainment area classified as serious, the increase in emissions of these pollutants from such source or modification shall be offset at a ratio of 1.2:1. Such offset shall be made in accordance with the provisions of Section 306 of this rule.

307.6 For any new major source or major modification which is classified as such because of emissions or potential to emit VOC or oxides of nitrogen in an ozone nonattainment area classified as severe, the increase in emissions of these pollutants from such source or modification shall be offset at a ratio of 1.3:1. If the SIP requires all existing major sources of these pollutants in the nonattainment area to apply BACT, then the offset ratio shall be 1.2:1. All such offsets shall be made in accordance with the provisions of Section 306 of this rule.

308 PERMIT REQUIREMENTS FOR SOURCES LOCATED IN ATTAINMENT AND UNCLASSIFIABLE AREAS:

308.1 Except as provided in Sections 308.2 through 308.7 and Section 509 of this rule, no permit or permit revision pursuant to this rule shall be issued to a person proposing to construct a new major source or proposing to make a major modification to a major source that would be constructed in an area designated as attainment or unclassifiable for any pollutant, unless the source or modification meets the following conditions:

- a. A new major source shall apply BACT for each pollutant listed in Rule 100 of these rules for which the potential to emit is significant.
- b. A major modification shall apply BACT for each pollutant listed in Rule 100 of these rules for which the modification would result in a significant net emissions increase at the source. This requirement applies to each proposed emissions unit at which a net emissions increase in the pollutant would occur as a result of a physical change or of a change in the method of operation in the unit.
- c. For phased construction projects, the determination of BACT shall be reviewed and modified as appropriate at the latest reasonable time which occurs no later than 18 months prior to commencement of construction of

each independent phase of the project. At such time the owner or operator of the applicable stationary source may be required to demonstrate the adequacy of any previous determination of BACT for the source.

- d. BACT shall be determined on a case-by-case basis and may constitute application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment, clean fuels, or innovative fuel combustion techniques, for control of such pollutant. In no event shall such application of BACT result in emissions of any pollutant which would exceed the emissions allowed by any applicable new source performance standard or national emission standard for hazardous air pollutants pursuant to Rule 360 and Rule 370 of these rules. If the Control Officer determines that technological or economic limitations on the application of measurement methodology to a particular emissions unit would make the imposition of an emissions standard infeasible, a design, equipment, work practice, operational standard or combination thereof, may be prescribed instead to satisfy the requirement for the application of BACT. Such standard shall, to the degree possible, set forth the emissions reduction achievable by implementation of such design, equipment, work practice or operation, and shall provide for compliance by means which achieve equivalent results.
- e. The person applying for the permit or permit revision pursuant to this rule performs an air impact analysis and monitoring as specified in Section 500 of this rule and such analysis demonstrates that allowable emission increases from the proposed new major source or major modification, in conjunction with all other applicable emission increases or reductions, including secondary emissions, for all pollutants listed in Rule 500 of these rules, and minor and mobile sources for oxides of nitrogen:
 - (1) Would not cause nor contribute to an increase in concentrations of any pollutant by an amount in excess of any applicable maximum allowable increase over the baseline concentration in Rule 500 of these rules for any attainment or unclassified area; or
 - (2) Would not cause nor contribute to an increase in ambient concentrations for a pollutant by an amount in excess of the significance level for such pollutant in any adjacent area in which Arizona primary or secondary ambient air quality standards for that pollutant are being violated. A new major source of volatile organic compounds or oxides of nitrogen, or a major modification to a major source of volatile organic compounds or oxides of nitrogen shall be presumed to contribute to violations of the Arizona ambient air quality standards for ozone if it will be located within 50 kilometers

(31 miles) of a nonattainment area for ozone. The presumption may be rebutted for a new major source or major modification if it can be satisfactorily demonstrated to the Control Officer that emissions of volatile organic compounds or oxides of nitrogen from the new major source or major modification will not contribute to violations of the Arizona ambient air quality standards for ozone in adjacent nonattainment areas for ozone. Such a demonstration shall include a showing that topographical, meteorological or other physical factors in the vicinity of the new major source or major modification are such that transport of volatile organic compounds emitted from the source are not expected to contribute to violations of the ozone standards in the adjacent nonattainment areas.

f. Air quality models:

- (1) All estimates of ambient concentrations required pursuant to this rule shall be based on the applicable air quality models, data basis, and other requirements specified in the "Guideline on Air Quality Models (Revised)" (EPA-450/2-78-027R, U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711, July 1986), and "Supplement B to the Guideline on Air Quality Models" (U.S. Environmental Protection Agency, September 1990). Both documents shall be referred to hereinafter as "Guideline", and are adopted by reference.
- (2) Where an air quality impact model specified in the guideline is inappropriate, the model may be modified or another model substituted. Such a change is subject to notice and opportunity for public comment. Written approval of the Administrator shall be obtained for any modification or substitution. Methods like those outlined in the "Workbook for the Comparison of Air Quality Models" (U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711, May 1978) should be used to determine the comparability of air quality models.

308.2 The requirements of this section shall not apply to a new major source or major modification to a source with respect to a particular pollutant if the person applying for the permit or permit revision pursuant to this rule demonstrates that, as to that pollutant, the source or modification is located in an area designated as nonattainment for the pollutant.

308.3 The requirements of this section shall not apply to a new major source or major modification of a source if such source or modification would be a major source

or major modification only if fugitive emissions, to the extent quantifiable, are considered in calculating the potential emissions of the source or modification, and the source is not either among the Categorical Sources listed in Section 202 of this rule or belongs to the category of sources for which New Source Performance Standards pursuant to 40 CFR Part 60 or National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 61, promulgated by the Administrator prior to August 7, 1980.

308.4 The requirements of this section shall not apply to a new major source or major modification to a source when the owner of such source is a nonprofit health or educational institution.

308.5 The requirements of this section shall not apply to a portable source which would otherwise be a new major source or major modification to an existing source if such portable source is temporary, is under a permit or permit revision issued pursuant to this rule, is in compliance with the conditions of that permit or permit revision pursuant to this rule, the emissions from the source will not impact a Class I area nor an area where an applicable increment is known to be violated, and reasonable notice is given to the Control Officer prior to the relocation identifying the proposed new location and the probable duration of operation at the new location. Such notice shall be given to the Control Officer not less than ten calendar days in advance of the proposed relocation unless a different time duration is previously approved by the Control Officer.

308.6 Special Requirements Applicable to Federal Land Managers:

- a. Notwithstanding any other provision of this rule, a Federal Land Manager may present to the Control Officer a demonstration that the emissions attributed to such new major source or major modification to a source will have significant adverse impact on visibility or other specifically defined air quality related values of any Federal Mandatory area designated in Rule 500 of these rules regardless of the fact that the change in air quality resulting from emissions attributable to such new major source or major modification to a source in existence will not cause or contribute to concentrations which exceed the maximum allowable increases for a Class I area. If the Control Officer concurs with such demonstrations, the permit or permit revision pursuant to this rule shall be denied.
- b. If the owner or operator of a proposed new major source or a source for which major modification is proposed demonstrates to the Federal Land Manager that the emissions attributable to such major source or major modification will have no significant adverse impact on the visibility or other specifically defined air quality related values of such areas and the

Federal Land Manager so certifies to the Control Officer, the Control Officer may issue a permit or permit revision pursuant to this rule notwithstanding the fact that the change in air quality resulting from emissions attributable to such new major source or major modification will cause or contribute to concentrations which exceed the maximum allowable increases for a Class I area. Such a permit or permit revision pursuant to this rule shall require that such new major source or major modification comply with such emission limitations as may be necessary to assure that emissions will not cause increases in ambient concentrations greater than the following maximum allowable increases over baseline concentrations for such pollutants:

| Maximum Allowable Increases | | |
|-----------------------------|------------------------|--------------------------------------|
| Pollutant | Averaging Time | Increase in $\mu\text{g}/\text{m}^3$ |
| TSP | Annual Geometric Mean | 19 |
| TSP | 24-hour Maximum | 37 |
| SO ₂ | Annual Arithmetic Mean | 20 |
| SO ₂ | 24-hour Maximum | 91 |
| SO ₂ | 3-hour Maximum | 325 |
| NO ₂ | Annual Arithmetic Mean | 25 |

308.7 The issuance of a permit or permit revision pursuant to this rule in accordance with this rule shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the SIP and any other requirements pursuant to local, State, or federal law.

308.8 At such time that a particular source or modification becomes a major source or major modification solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of this rule shall apply to the source or modification as though construction had not yet commenced on the source or modification.

309 STACK HEIGHT LIMITATION:

309.1 The limitations set forth herein shall not apply to stacks or dispersion techniques used by the owner or operator prior to December 31, 1970, for which the owner or operator had:

- a. Begun, or caused to begin, a continuous program of physical on-site construction of the stack;
- b. Entered into building agreements or contractual obligations, which could not be canceled or modified without substantial loss to the owner or operator, to undertake a program of construction of the stack to be completed in a reasonable time; or
- c. Coal fired steam electric generating units, subject to the provisions of Section 118 of the Act which commenced operation before July 1, 1975, with stacks constructed under a construction contract awarded before February 8, 1974.

309.2 GEP stack height is calculated as the greater of the following four numbers:

- a. 65 meters (213.25 feet).
- b. For stacks in existence on January 12, 1979 and for which the owner or operator had obtained all applicable preconstruction permits or approvals required pursuant to 40 CFR Parts 51 and 52 and Section 305 of this rule, $H_g = 2.5H$.

- c. For all other stacks, $H_g = H + 1.5L$, where
 H_g = good engineering practice stack height, measured from the ground-level elevation at the base of the stack;
 H = height of nearby structure measured from the ground-level elevation at the base of the stack;
 L = lesser dimension (height or projected width) of nearby structure; provided that the EPA, the Director, or the Control Officer may require the use of a field study or fluid model to verify GEP stack height for the source; or
- d. The height demonstrated by a fluid model or a field study approved by the reviewing agency, which ensures that the emissions from a stack do not result in excessive concentrations of any air pollutant as a result of atmospheric downwash, wakes, or eddy effects created by the source itself, nearby structures, or nearby terrain obstacles.
- e. For a specific structure or terrain feature, "nearby" shall be:
 - (1) For purposes of applying the formulae in Sections 309.2b and 309.2c of this rule, that distance up to five times the lesser of the height or the width dimension of a structure but not greater than 0.8 km (one-half mile).
 - (2) For conducting demonstrations pursuant to Section 309.2d of this rule, means not greater than 0.8 km (one-half mile). An exception is that the portion of a terrain feature may be considered to be nearby which falls within a distance of up to ten times the maximum height (H_+) of the feature, not to exceed two miles if such feature achieved a height (H_+) 0.8 km from the stack. The height shall be at least 40 percent of the GEP stack height determined by the formula provided in Section 309.2c of this rule, or 85 feet (26 meters), whichever is greater, as measured from the ground-level elevation at the base of the stack.
- f. "Excessive concentrations" means, for the purpose of determining good engineering practice stack height pursuant to Section 309.2d of this rule:
 - (1) For sources seeking credit for stack height exceeding that established pursuant to Sections 309.2b and 309.2c of this rule, a maximum ground-level concentration due to emissions from a stack due in whole or in part to downwash, wakes, and eddy effects produced by nearby structures or nearby terrain features which individually is at least 40 percent in excess of the maximum

concentration experienced in the absence of such downwash, wakes, or eddy effects and which contributes to a total concentration due to emissions from all sources that is greater than an ambient air quality standard. For sources subject to the requirements for permits or permit revisions pursuant to this rule, an excessive concentration alternatively means a maximum ground-level concentration due to emissions from a stack due in whole or part to downwash, wakes or eddy effects produced by nearby structures or nearby terrain features which individually is at least 40 percent in excess of the maximum concentration experienced in the absence of such downwash, wakes or eddy effects and greater than the applicable maximum allowable increase contained in Rule 500 of these rules. The allowable emission rate to be used in making demonstrations pursuant to Section 309.2d of this rule shall be prescribed by the new source performance standard which is applicable to the source category unless the owner or operator demonstrates that this emission rate is infeasible. Where such demonstrations are approved by the Control Officer, an alternative emission rate shall be established in consultation with the source owner or operator;

- (2) For sources seeking credit after October 11, 1983, for increases in existing stack heights up to the heights established pursuant to Sections 309.2b and 309.2c of this rule, either:

 - (a) A maximum ground-level concentration due in whole or in part to downwash, wakes, or eddy effects as provided in Section 309.2f(1) of this rule, except that emission rate specified by any applicable SIP shall be used, or
 - (b) The actual presence of a local nuisance caused by the existing stack, as determined by the Control Officer; and
- (3) For sources seeking credit after January 12, 1979, for a stack height determined pursuant to Section 309.2b and 309.2c of this rule, where the Control Officer requires the use of a field study or fluid model to verify GEP stack height, for sources seeking stack height credit after November 9, 1984, based on the aerodynamic influence of cooling towers, and for sources seeking stack height credit after December 31, 1970, based on the aerodynamic influence of structures not adequately represented by the equations in Sections 309.2b and 309.2c of this rule, a maximum ground-level concentration due in whole or in part to downwash, wakes, or eddy effects that is at least 40 percent in excess of the

maximum concentration experienced in the absence of such downwash, wakes, or eddy effects.

- 309.3** The degree of emission limitation required of any source after the respective date given in Section 309.1 of this rule for control of any pollutant shall not be affected by so much of any source's stack height that exceeds good engineering practice or by any other dispersion technique.
- 309.4** The GEP stack height for any source seeking credit because of plume impaction which results in concentrations in violation of national ambient air quality standards or applicable prevention of significant deterioration increments can be adjusted by determining the stack height necessary to predict the same maximum air pollutant concentration on any elevated terrain feature as the maximum concentration associated with the emission limit which results from modelling the source using the GEP stack height as determined herein and assuming the elevated terrain features to be equal in elevation to the GEP stack height. If this adjusted GEP stack height is greater than stack height the source proposes to use, the source's emission limitation and air quality impact shall be determined using the proposed stack height and the actual terrain heights.
- 309.5** Before the Control Officer issues a permit or permit revision pursuant to this rule to a source based on a GEP stack height that exceeds the height allowed by Section 309.2 of this rule, the Control Officer shall notify the public of the availability of the demonstration study and provide opportunity for a public hearing in accordance with the requirements of Rule 210 of these rules.

SECTION 500 - MONITORING AND RECORDS

501 POLLUTANTS TO BE INCLUDED IN ANALYSIS OF AMBIENT AIR QUALITY: Any application for a permit or permit revision pursuant to this rule to construct a new major source or major modification to a major source shall contain for each of the following pollutants an analysis of ambient air quality in the area that the new major source or major modification would affect:

- 501.1** For the new source, each pollutant that it would have the potential to emit in a significant amount;
- 501.2** For the modification, each pollutant for which it would result in a significant net emissions increase.

502 PRECONSTRUCTION AIR QUALITY MONITORING DATA:

- 502.1** With respect to any such pollutant for which no Arizona ambient air quality standard exists, the analysis shall contain all air quality monitoring data as the Control Officer determines is necessary to assess ambient air quality for that pollutant in any area that the emissions of the pollutant would affect.
- 502.2** With respect to any such pollutant, other than nonmethane hydrocarbons, for which an Arizona ambient air quality standard does exist, the analysis shall contain continuous air quality monitoring data gathered for purposes of determining whether emissions of that pollutant would cause or contribute to a violation of such standard or of any maximum allowable increase.
- 502.3** In general, the continuous air quality monitoring data that is required shall have been gathered over a period of at least one year and shall represent at least the year preceding receipt of the application, except that if the Control Officer determines that a complete and adequate analysis can be accomplished with continuous air quality monitoring data gathered over a period shorter than one year but not to be less than four months, the data that is required shall have been gathered over at least that shorter period.

503 COMPLETE APPLICATION AIR QUALITY MONITORING DATA: For any application which, prior to February 9, 1982, becomes complete, except as to the requirements of Section 502.2 of this rule, the data that Section 502.2 of this rule requires shall have been gathered over at least the period from February 9, 1981, to the date the application becomes otherwise complete, except that:

- 503.1** If the new source or modification would have been major for that pollutant pursuant to Section 308 of this rule as in effect on October 2, 1979, any monitoring data shall have been gathered over at least the period required by Section 308 of this rule.
- 503.2** If the Control Officer determines that a complete and adequate analysis can be accomplished with monitoring data over a shorter period (not to be less than four months), the data that Section 502.2 of this rule requires shall have been gathered over that shorter period.
- 503.3** If the monitoring data would relate exclusively to ozone and would not have been required pursuant to Section 308 of this rule as in effect on October 2, 1979, the Control Officer may waive the otherwise applicable requirements of Section 308 of this rule to the extent that the applicant shows that the monitoring data would be unrepresentative of air quality over the full year.

504 POST-APPROVAL AIR QUALITY MONITORING DATA FOR OZONE:

The owner or operator of a proposed stationary source or modification to a source of volatile organic compounds who satisfies all conditions of 40 CFR 51, Appendix S, Section IV, may provide post-approval monitoring data for ozone in lieu of providing preconstruction data as required pursuant to Section 502 of this rule.

505 POST-CONSTRUCTION AIR QUALITY MONITORING DATA:

The owner or operator of a new major source or major modification shall, after construction of the source or modification, conduct such ambient monitoring as the Control Officer determines is necessary to determine the effect emissions from the new source or modification may have, or are having, on air quality in any area.

506 OPERATIONS OF MONITORING STATIONS:

The owner or operator of a new major source or major modification shall meet the requirements of 40 CFR 58, Appendix B, during the operation of monitoring stations for purposes of satisfying Sections 502 through 505 of this rule.

507 EXCEPTIONS TO MONITORING FOR A PARTICULAR POLLUTANT:

The requirements of Sections 502 through 506 of this rule shall not apply to a new major source or major modification to an existing source with respect to monitoring for a particular pollutant if:

- 507.1** The emissions increase of the pollutant from the new source or the net emissions increase of the pollutant from the modification would cause, in any area, air quality impacts less than the following amounts:

| Pollutant | Concentration | Averaging Time |
|--------------------------|--|-----------------|
| Carbon Monoxide | 575 µg/m ³ | 8 hour average |
| Nitrogen dioxide | 14 µg/m ³ | annual average |
| PM ₁₀ | 10 µg/m ³ | 24 hour average |
| Sulfur dioxide | 13 µg/m ³ | 24 hour average |
| Lead | 0.1 µg/m ³ | 24 hour average |
| Fluorides | 0.25 µg/m ³ | 24 hour average |
| Total reduced sulfur | 10 µg/m ³ | 1 hour average |
| Hydrogen sulfide | 0.04 µg/m ³ | 1 hour average |
| Reduced sulfur compounds | 10 µg/m ³ | 1 hour average |
| Ozone | increased emissions of less than 100 tons per year of volatile organic compounds or oxides of nitrogen | |

or,

- 507.2** The concentrations of the pollutant in the area that the new source or modification would affect are less than the concentrations listed in Section 507.1 of this rule.

508 VISIBILITY AND AIR QUALITY IMPACT ANALYSIS: Any application for a permit or a permit revision pursuant to this rule to construct a new major source or major modification to a source shall contain:

- 508.1** An analysis of the impairment to visibility, soils and vegetation that would occur as a result of the new source or modification and general commercial, residential, industrial and other growth associated with the new source or

modification. The applicant need not provide an analysis of the impact on vegetation having no significant commercial or recreational value.

- 508.2** An analysis of the air quality impact projected for the area as a result of general commercial, residential, industrial and other growth associated with the new source or modification.

509 INNOVATIVE CONTROL TECHNOLOGY:

- 509.1** Notwithstanding the provisions of Sections 308.1a, 308.1b, and 308.1c, of this rule, the owner or operator of a proposed new major source or major modification may request that the Control Officer approve a system of innovative control technology rather than the BACT requirements otherwise applicable to the new source or modification.

- 509.2** The Control Officer shall approve the installation of a system of innovative control technology, if the following conditions are met:

- a. The owner or operator of the proposed source or modification satisfactorily demonstrates that the proposed control system would not cause or contribute to an unreasonable risk to public health, welfare, or safety in its operation or function;
- b. The owner or operator agrees to achieve a level of continuous emissions reduction equivalent to that which would have been required pursuant to Section 308.1b of this rule by a date specified in the permit or permit revision pursuant to this rule for the source. Such date shall not be later than four years from the time of start-up or seven years from the issuance of a permit or permit revision pursuant to this rule;
- c. The source or modification would meet requirements equivalent to those in Section 308.1 of this rule based on the emissions rate that the stationary source employing the system of innovative control technology would be required to meet on the date specified in the permit or permit revision pursuant to this rule;
- d. Before the date specified in the permit or permit revision pursuant to this rule, the source or modification would not:
 - (1) Cause or contribute to any violation of an applicable State ambient air quality standard; or
 - (2) Impact any area where an applicable increment is known to be violated.

- e. All other applicable requirements, including those for public participation have been met.
- f. The Control Officer receives the consent of the governors of other affected states.
- g. The limits on pollutants contained in Rule 500 of these rules for Class I areas will be met for all periods during the life of the source or modification.

509.3 The Control Officer shall withdraw any approval to employ a system of innovative control technology made pursuant to this rule if:

- a. The proposed system fails by the specified date to achieve the required continuous emissions reduction rate; or
- b. The proposed system fails before the specified date so as to contribute to an unreasonable risk to public health, welfare, or safety; or
- c. The Control Officer decides at any time that the proposed system is unlikely to achieve the required level of control or to protect the public health, welfare, or safety.

509.4 If the new source or major modification fails to meet the required level of continuous emissions reduction within the specified time period, or if the approval is withdrawn in accordance with Section 509.3 of this rule, the Control Officer may allow the owner or operator of the source or modification up to an additional three years to meet the requirement for the application of BACT through use of a demonstrated system of control.

510 AIR QUALITY MODELS:

- 510.1** Where the Control Officer requires a person requesting a permit or permit revision under this rule to perform air quality impact modeling to obtain such permit or permit revision under this rule, the modeling shall be performed in a manner consistent with the Guideline.
- 510.2** Where the person requesting a permit or permit revision under this rule can demonstrate that an air quality impact model specified in the Guideline is inappropriate, the model may be modified or another model substituted. However, before such modification or substitution can occur, the Control Officer must make a written finding that:
- a.** No model in the Guideline is appropriate for a particular permit or permit revision under this rule under consideration; or
 - b.** The data base required for the appropriate model in the Guideline is not available; and
 - c.** The model proposed as a substitute or modification is likely to produce results equal or superior to those obtained by models in the Guideline; and
 - d.** The model proposed as a substitute or modification has been approved by the Administrator.
- 510.3** Use of a modified or substituted model under this rule shall be subject to notice and opportunity for public comment pursuant to Rule 210 of these rules.

511 VISIBILITY PROTECTION:

- 511.1** For any new major source or major modification subject to the provisions of this rule, no permit or permit revision under this rule shall be issued to a person proposing to construct or to modify the source, unless the applicant has provided:
- a.** An analysis of the anticipated impacts of the proposed source on visibility in any Class I areas which may be affected by the emissions from that source; and

- b.** Results of monitoring of visibility in any area near the proposed source for such purposes and by such means as the Control Officer determines is necessary and appropriate.

511.2 A determination of an adverse impact on visibility shall be made based on consideration of all of the following factors:

- a.** The times of visitor use of the area.
- b.** The frequency and timing of natural conditions in the area that reduce visibility.
- c.** All of the following visibility impairment characteristics:
 - (1)** Geographic extent.
 - (2)** Intensity.
 - (3)** Duration.
 - (4)** Frequency.
 - (5)** Time of day.
- d.** The correlation between the characteristics listed in Section 511.2c of this rule and the factors described in Sections 511.2a and 511.2b of this rule.

511.3 The Control Officer shall not issue a permit or a permit revision pursuant to this rule or pursuant to Rules 200, 210, 245, and 270 of these rules for any new major source or major modification subject to this rule, unless the following requirements have been met:

- a.** The Control Officer shall notify the individuals identified in Section 511.3b of this rule within 30 days of receipt of any advance notification of any such permit application or permit revision application under this rule.
- b.** Within 30 days of receipt of an application for a permit or permit revision pursuant to this rule for a source whose emissions may affect a Class I area, the Control Officer shall provide written notification of the application to the Federal Land Manager and to the federal official charged with direct responsibility for management of any lands within any such area. The notice shall:

- (1) Include a copy of all information relevant to the permit application or to the permit revision application under this rule;
 - (2) Include an analysis of the anticipated impacts of the proposed source on visibility in any area which may be affected by emissions from the source; and
 - (3) Provide for no less than a 30 day period within which written comments may be submitted.
- c. The Control Officer shall consider any analysis provided by the Federal Land Manager that is received within the comment period provided in Section 511.3b of this rule.
- (1) Where the Control Officer finds that the analysis provided by the Federal Land Manager does not demonstrate to the satisfaction of the Control Officer that an adverse impact on visibility will result in the area, the Control Officer shall, within the public notice required by Rule 210 of these rules, either explain the decision or specify where the explanation can be obtained.
 - (2) When the Control Officer finds that the analysis provided by the Federal Land Manager demonstrates to the satisfaction of the Control Officer that an adverse impact on visibility will result in the area, the Control Officer shall not issue a permit or permit revision under this rule for the proposed new major source or major modification.
- d. When the proposed permit decision is made pursuant to Rule 210 of these rules and available for public review, the Control Officer shall provide the individuals identified in Section 511.3b of this rule with a copy of the proposed permit decision and shall make available to them any materials used in making that determination.